

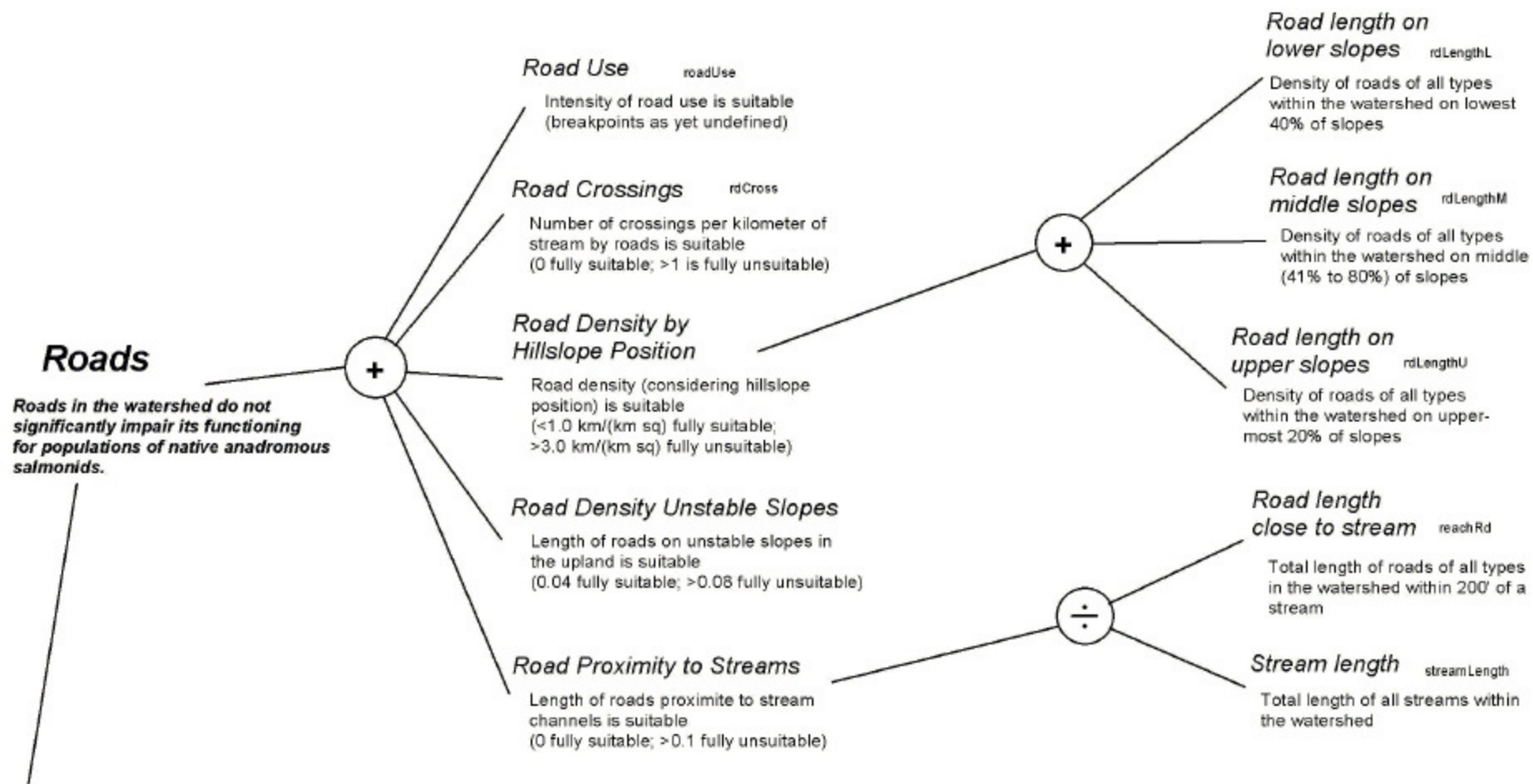
DRAFT

Redwood Creek Watershed Synthesis Report



The mission of the North Coast Watershed Assessment Program is to conserve and improve California's north coast anadromous salmonid populations by conducting, in cooperation with public and private landowners, systematic multi-scale assessments of watershed conditions to determine factors affecting salmonid production and recommend measures for watershed improvements.

Roads Dependency Network



Redwood Creek Hydrologic Area

EMDS Model Results

Roads Overall

Prairie Creek

Estuary

Lower Redwood Creek

Middle Redwood Creek

Upper Redwood Creek

Legend

Hydrography

- Fully Unsuitable
- Moderately Unsuitable
- Somewhat Unsuitable
- Undetermined (No Data)
- Somewhat Suitable
- Moderately Suitable
- Fully Suitable
- Outside Study Area

5 0 5 Miles

1/14/02 Rich Walker CDF

ROADS OVERALL -

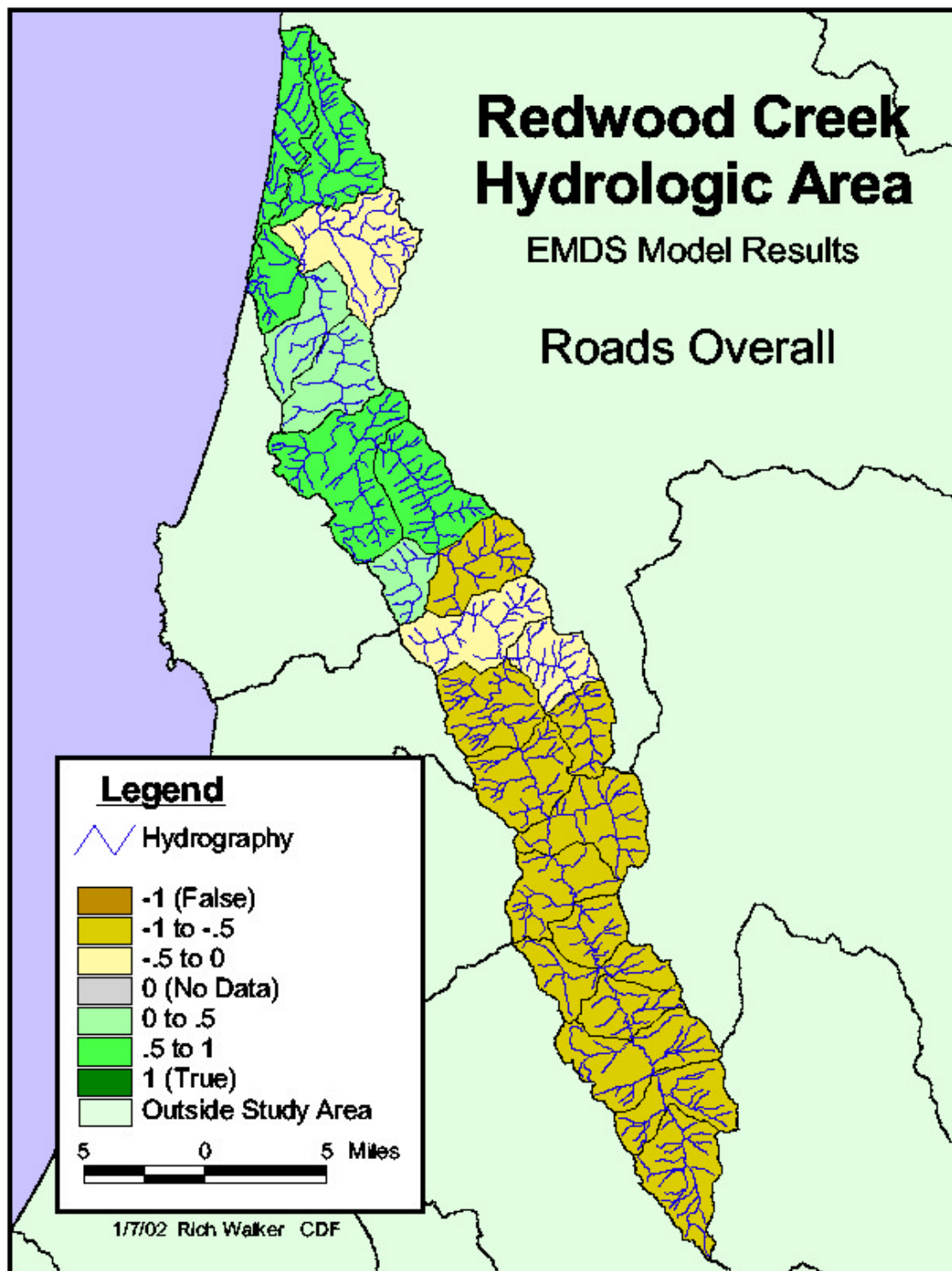
Proposition:

Roads in the Planning Watershed do not significantly impair its functioning for sustaining healthy populations of native anadromous salmonids

Evaluated by the following:

Combines all road factors through an “AND” node to provide a comprehensive road impact score. Road impacts are evaluated using USGS 1:24k road and stream data.

NOTE: Truth values at the highest levels represent the combined scores from lower level networks and thus are not calculated using a dependency curve.



ROADS OVERALL -

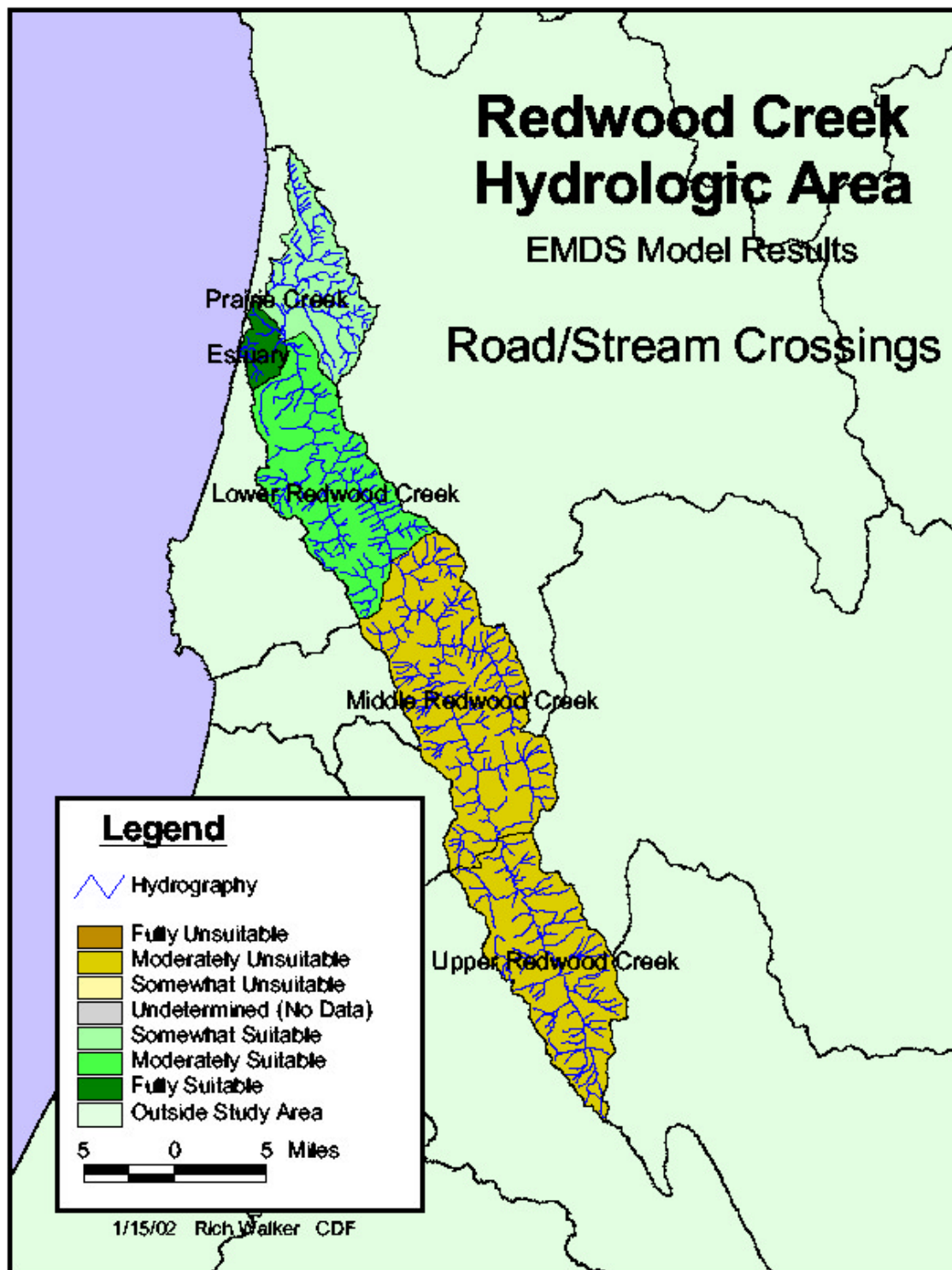
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ROAD and STREAM CROSSINGS -

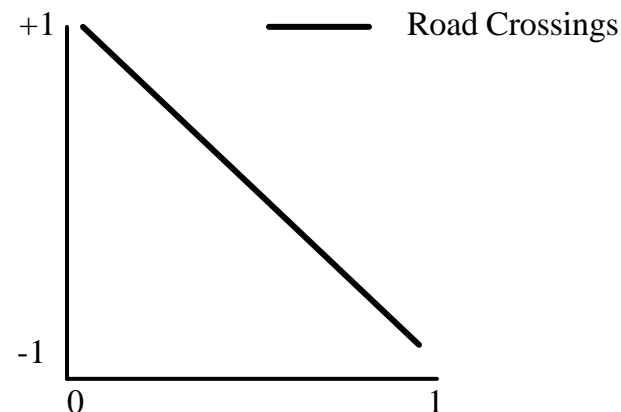
Proposition:

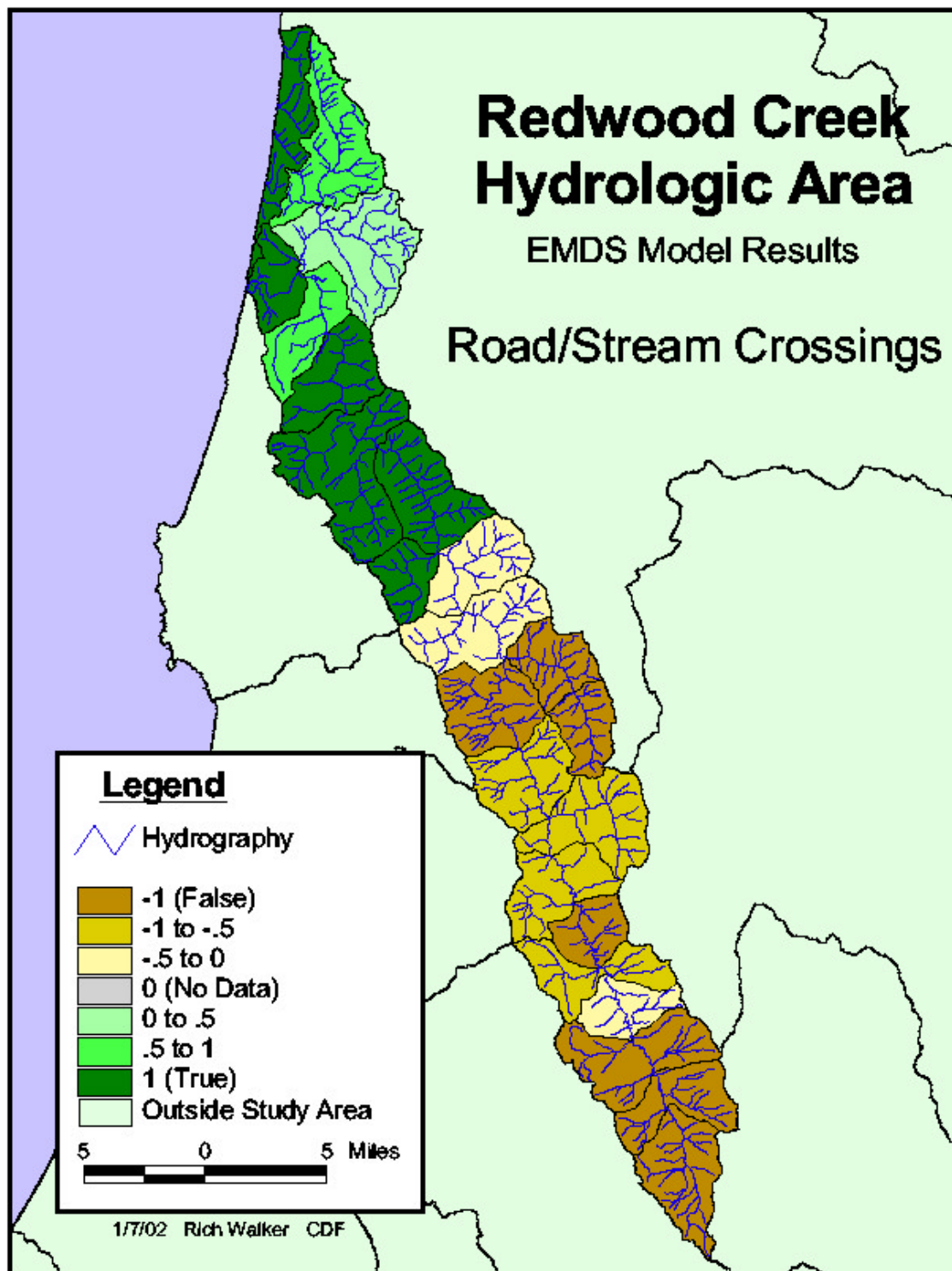
Number of road crossing of streams in the Planning Watershed do not significantly impair its functioning for sustaining healthy populations of native anadromous salmonids

Evaluated by the number of crossings per kilometer of stream using USGS 1:24k road and stream data.

Break Points: 0 low, 1 high

Units: # of crossings per km





ROAD and STREAM CROSSINGS -

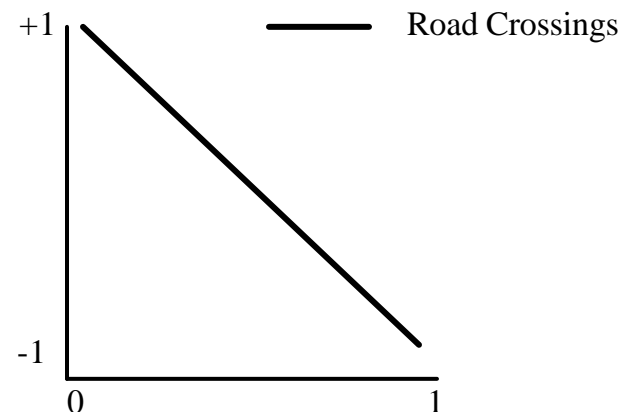
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Break Points: 0 low, 1 high

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Redwood Creek Hydrologic Area

EMDS Model Results

Road Density by Hillslope Position

Prairie Creek

Estuary

Lower Redwood Creek

Middle Redwood Creek

Upper Redwood Creek

Legend

Hydrography

- Fully Unsuitable
- Moderately Unsuitable
- Somewhat Unsuitable
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5 0 5 Miles

1/15/02 Rich Walker CDF

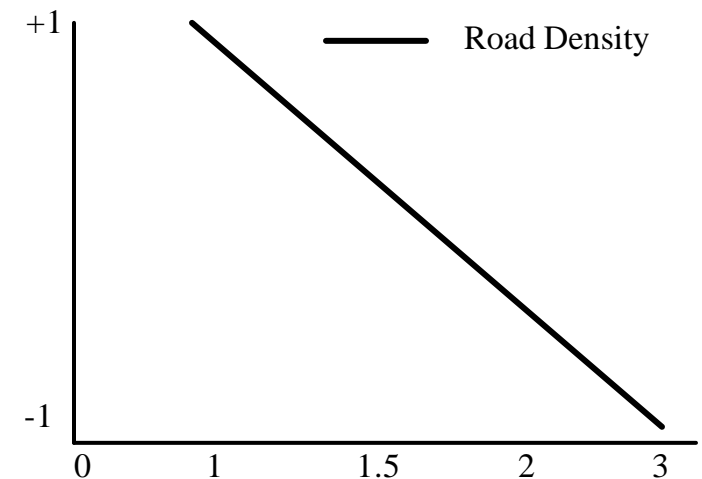
ROAD DENSITY BY HILLSLOPE POSITION

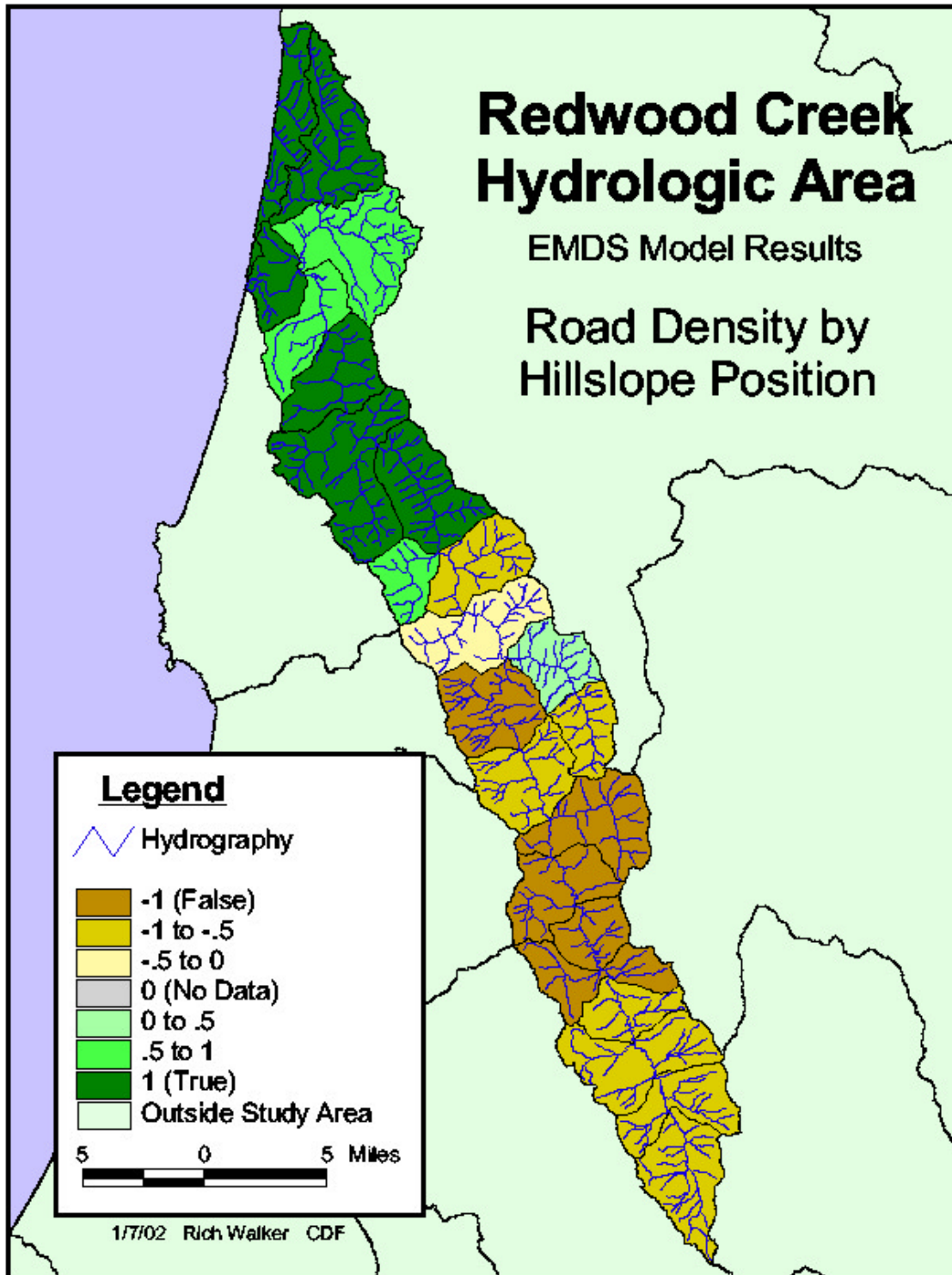
Proposition:

Road densities by hillslope position Planning Watershed do not significantly impair its functioning for sustaining healthy populations of native anadromous salmonids

Weighted by 3 classes of hillslope positions. Evaluated using USGS 10m DEMs, 1:24k road and stream data.

Break Points: 1 low, 3 high
Units: km/km².





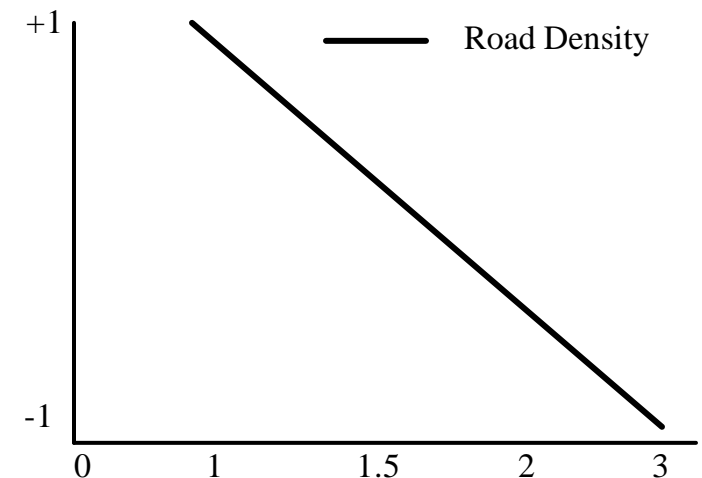
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Break Points: 1 low, 3 high
Units: km/km².



Redwood Creek Hydrologic Area

EMDS Model Results

Road Proximity to Streams

Prairie Creek

Estuary

Lower Redwood Creek

Middle Redwood Creek

Upper Redwood Creek

Legend

Hydrography

- Fully Unsuitable
- Moderately Unsuitable
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1/15/02 Rich Walker CDF

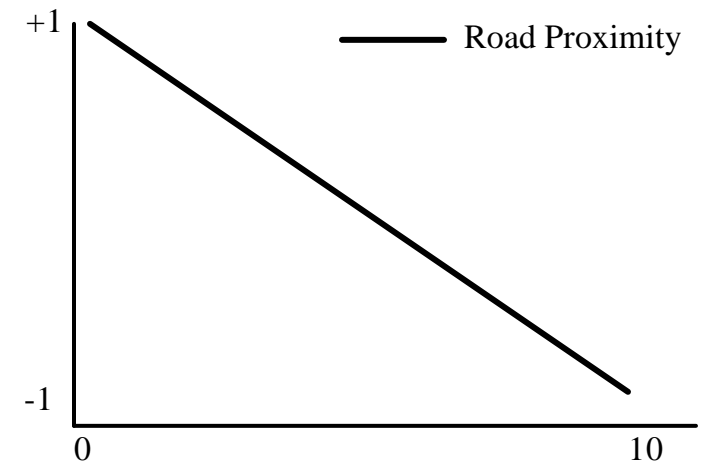
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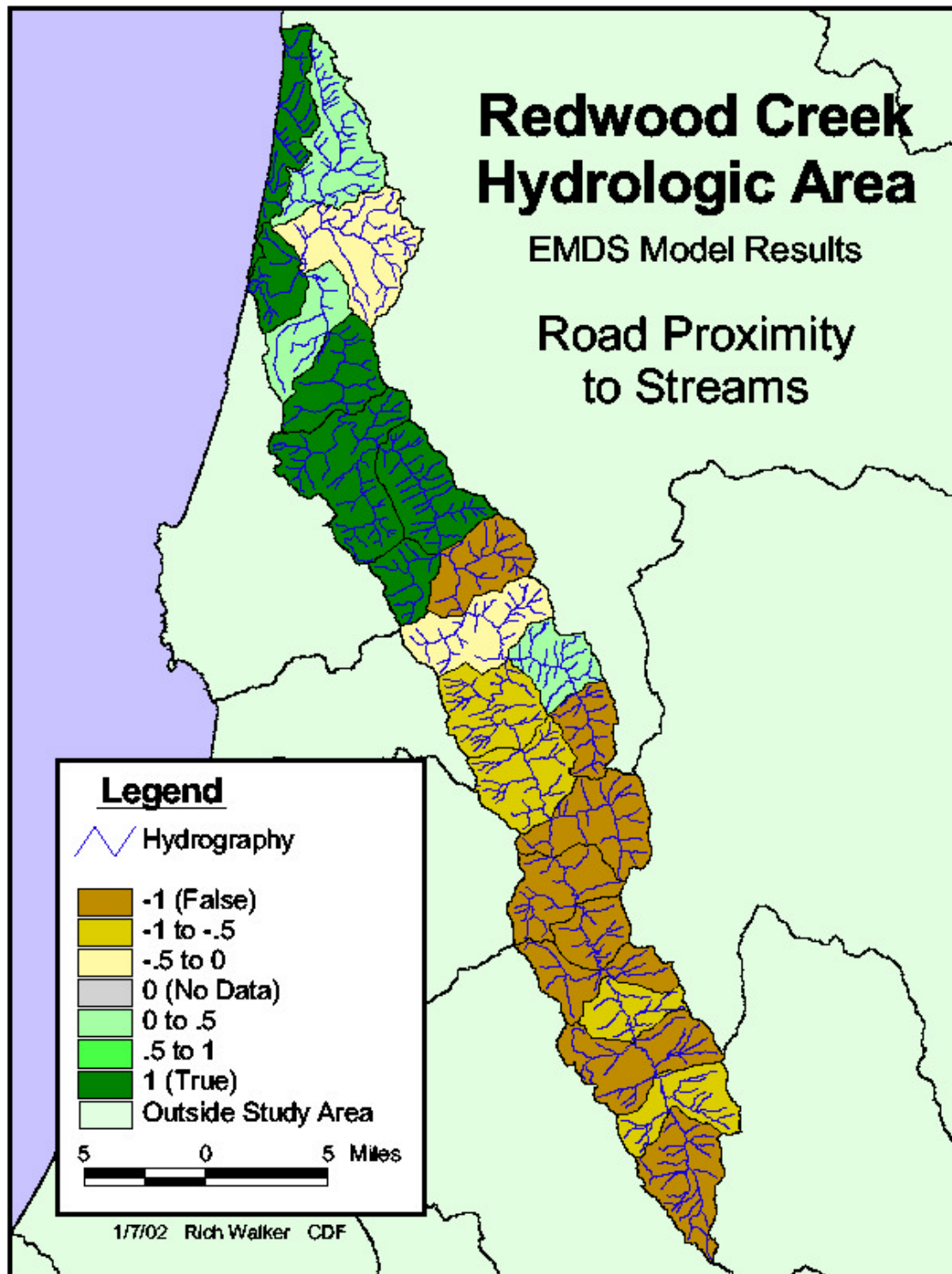
Proposition:

Roads proximate to streams in the Planning Watershed do not significantly impair its functioning for sustaining healthy populations of native anadromous salmonids

Uses USGS 1:24k road and stream data. Evaluates percent of stream length, in a planning watershed that has a road within 200 ft.

Break Points: 0% low, 10% high
Units: km/km (%)





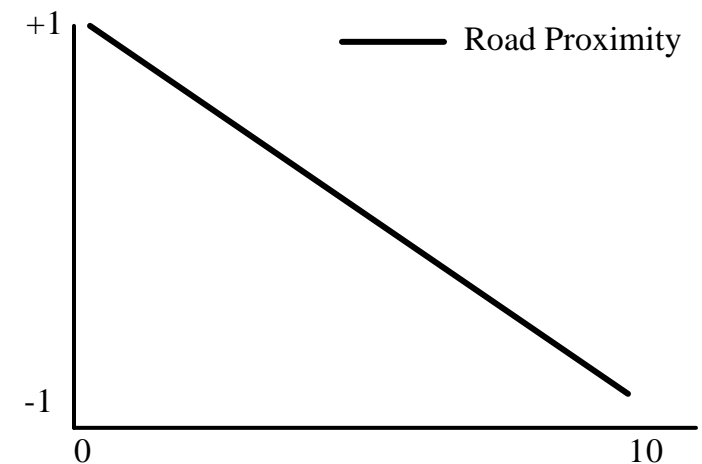
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Redwood Creek Hydrologic Area

EMDS Model Results

Road Density on Unstable Slopes

Prairie Creek

Estuary

Lower Redwood Creek

Middle Redwood Creek

Upper Redwood Creek

Legend

- Hydrography
- Fully Unsuitable
 - Moderately Unsuitable
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1/15/02 Rich Walker CDF

ROADS on POTENTIALLY UNSTABLE SLOPES -

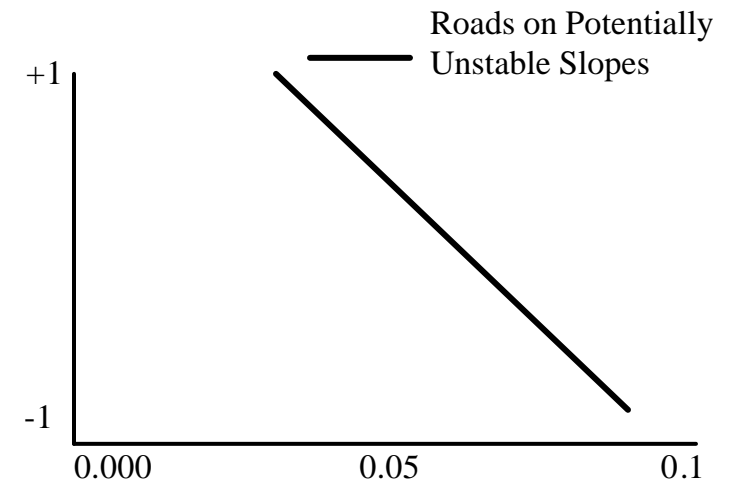
Proposition:

Roads on potentially unstable slopes in the Planning Watershed do not significantly impair its functioning for sustaining healthy populations of native anadromous salmonids

Assessed using USGS 1:24k road data and SHALSTAB classes, where $\log q/T$ values are ≤ -2.8 . Evaluates the density of roads crossing potentially unstable slopes.

Break Points: 0.0437 low, 0.0765 high

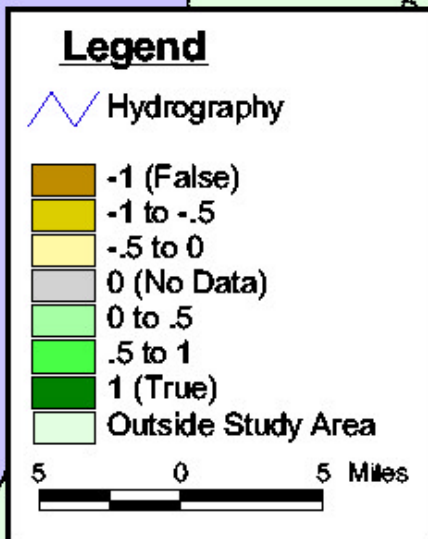
Units: km / km²



Redwood Creek Hydrologic Area

EMDS Model Results

Road Density on Unstable Slopes



1/7/02 Rich Walker CDF

ROADS on POTENTIALLY UNSTABLE SLOPES -

Proposition:

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